NEW OR CRITICAL FUNGI.

By George Massee, F.L.S., F.R.M.S.

(Plate 357.)

Clypeum, nov. gen. (Pl. 357, figs. 1–3). Perithecia discoid, applanate, fixed to the substratum by a small point; central portion umbonate, sterile; peripheral part with numerous radial ridges, each ridge is structurally an elongated perithecium, dehiscing by a narrow, persistently closed slit running its entire length; asci cylindric-clavate, 8-spored; spores irregularly 2-seriate, hyaline, smooth, 1-septate, elliptical; paraphyses numerous, septate.

A very remarkable genus without close affinities; superficially somewhat resembling *Actidium*, but differing in the perithecium consisting of an applanate circular disc attached by a central point. The central portion of the upper surface is slightly umbonate and sterile; the remainder consisting of radiating ridges which sometimes fork near the margin. Each ridge corresponds in structure to the simple perithecium in such genera as *Hysterium*, hence the present may in a sense be considered a compound structure, as in *Eutypa* or *Hypoxylon*. The lips of the perithecia (forming the radial ridges), and the stroma connecting the same, consist of brown, stout, thick-walled, interwoven hyphæ. The present genus is certainly the most highly evolved of any included in the *Hysteriaceæ*. There are certain superficial points of resemblance with certain genera included in the *Microthyriaceæ*, but the present differs essentially from all in the perithecia dehiscing by a narrow, elongated slit, which does not open and expose the disc at maturity.

Clypeum peltatum Mass. (Pl. 357, figs. 1–3). Perithecia epiphyllous, orbicular, plane, gregarious or crowded and overlapping, black, somewhat membranaceous, fixed by a central point; perithecia forming ridges radiating from a central, sterile portion, 2–3 mm. diameter; asci cylindric-clavate, 8-spored, 100–110 × 14–15 μ; spores irregularly 2-seriate, hyaline, smooth, elliptic-clavate, 1-septate, upper cell slightly largest, 15 × 8–9 μ; paraphyses numerous, septate, sometimes branched, slightly thickened at the olive-brown tips, which are 4–5 μ thick.

Crowded and nearly covering the upper surface of some undetermined coriaceous leaf.

Napier; New Zealand (*Colenso*).

When seen under a lens, the perithecia closely resemble the pileus of *Coprinus plicatilis*.

Dasyscypha trabinelloides Mass. (Pl. 357, fig. 4). Gregarious or sometimes crowded, sessile, at first globose and closed, then expanding, becoming again contracted when dry, entirely orange-coloured, 0·5–1·5 mm. diameter; substance thin and soft; excipulum formed of radiately parallel, septate hyphæ about 4–5 μ thick; externally pubescent, the hairs often arranged in groups, septate, cylindrical, obtuse, minutely rough, overtopping the entire

margin and giving it a fringed appearance when seen from the outside, 50–75 × 4–5 μ; asci narrowly clavate, apex slightly narrowed and tinged blue with iodine, 60–70 × 7–8 μ; spores 8, irregularly biseriate, hyaline, smooth, straight or very slightly curved, oblong-fusiform, 1-septate, not at all constricted at the septum, 10–15 × 3–4 μ; paraphyses filiform, sometimes branched, containing orange oil-globules.

Helotium trabinelloides Rehm. Ascom. no. 853.

Solenopezia trabinelloides Sacc. Syll. viii. no. 1982.

Helotiella Nuttallii E. & E. Proc. Acad. Nat. Sci. Philad., Part iii. 1894, p. 351.

Exsicc.—Rehm's Ascom. no. 853; Ellis & Everhart, N. Amer. Fung., Ser. ii. no. 3233.

On dry decorticated beech wood, Gomshall, Surrey. Found on the same matrix in Hungary, and on decaying wood of *Castanea* in the United States.

The American fungus described by Ellis & Everhart is identical with the species previously issued by Rehm in his Ascom. no. 853 as *Helotium trabinelloides*. *Peziza Dorcas* B. & Br., a Ceylon species, is almost indistinguishable under a lens from the present, but readily distinguished under the microscope by the excipulum being composed of fairly regularly-sized polygonal cells 9–12 μ in diameter.

Dasyscypha aurea Mass. Gregarious, sessile but narrowed to a short, stout, stem-like base, depresso-globose and closed at first, then expanded, but the margin more or less permanently erect, thin, 1½–2 mm. across; entirely clear sulphur-yellow, externally densely villose, hairs crowded, straight or very slightly flexuous, thin-walled, sparsely septate, cylindrical, apex obtuse or slightly pointed, minutely rough, pale yellow, 150–200 × 4–5 μ; hypothecium and excipulum minutely parenchymatous, cortical cells hexagonal or almost oblong, elongated in the direction from base to margin, 7–9 × 4–5 μ, pale yellow; asci rather broadly clavate, becoming gradually narrowed downwards from the very obtuse, rounded apex, 8-spored, not at all coloured with iodine; spores irregularly 2-seriate, hyaline, continuous, smooth, cylindrical, ends obtuse, often 2-guttulate, straight or slightly curved, 18–20 × 5 μ; paraphyses cylindrical, hyaline, about 2 μ thick, longer than the asci.

On rugged bark. Near Dimboola, Victoria, Australia (*F. Reader*).

Externally almost indistinguishable from *Erinella Nova-Zealandiæ*.

Dasyscypha Eupatorii Mass. Scattered, sessile, closed at first, then expanding until almost or quite plane, sometimes more or less contracted when dry, at other times remaining plane, 2–5 mm. diameter; substance soft and slightly fleshy; hypothecium and excipulum consisting of densely interwoven hyphæ, which become arranged in a parallel series to form the entire margin; externally clothed with cylindrical, 3–7-septate, obtuse hairs, which are sometimes rough with external, amorphous particles of lime, dark brown and translucent, except near the apex, which is paler, or almost hyaline, changing to a clear purple colour when treated

with potassium hydrate, 70–120 × 5–7 μ, sometimes arranged in fascicles; asci clavate, apex narrowed and blue with iodine; pedicel elongated, often crooked, 100 × 8–9 μ; spores 8, irregularly 2-seriate, straight or slightly curved, hyaline, smooth, for a long time continuous, finally 1-septate, 12–20 × 3 μ (averaging 15 μ long); paraphyses hyaline, 2–3 μ thick, almost cylindrical.

Peziza Eupatorii Schw. Syn. Fung. 174 (1834).

Trichopeziza Eupatorii Sacc. Syll. no. 1758.

On dead stems of *Eupatorium purpureum*, Bethlehem, U.S.A. (*Schweinitz*).

The above diagnosis is drawn up from a specimen named by Schweinitz, and now in Herb. Berk., Kew. The clear purple colour assumed by the external hairs when treated with potassic hydrate is very striking. There is not a single point of specific relationship between the present species and *Peziza solenia* Peck. (= *Solenopezia solenia* Sacc. Syll. no. 1981), as has been suggested.

Barlæa subaurantiaca Mass. Ascophore subsessile, contracted into a very short, stem-like base; at first convex and closed, then expanding and becoming plane, the entire margin frequently drooping; disc umbilicate and usually furnished with a few radiating shallow furrows, tan-colour with a tinge of orange; externally whitish, very minutely scurfy, about 1 cm. across; excipulum formed of densely interwoven, septate hyphæ about 6–7 μ thick, cortex pseudo-parenchymatous, and running out into minute, irregular groups of cells that give the scurfy appearance to the outside; asci cylindrical, apex subtruncate, base narrowed into a long pedicel, 8-spored; spores obliquely 1-seriate, hyaline, 1-guttulate, rather coarsely warted, globose or subglobose, 14 μ diameter; paraphyses septate, the clavate tip 7–8 μ thick.

On the ground. Hamilton, Victoria.

Allied in size and habit to *Barlæa recurva* Berk., from Tasmania, but distinguished by the smaller spores and the orange-yellow disc.

Erinella Novæ-Zelandiæ Mass. Gregarious, narrowed below into a short stem like base, clavate and closed at first, then expanding and becoming pear-shaped, 2–3 mm. across; disc concave, pale yellow, externally tawny, densely clothed with septate, obtuse, cylindrical, brown, thin-walled hairs, 60–80 × 4–5 μ, usually rough with minute particles of lime; hairs forming the margin longer and pale, except at the tip; excipulum parenchymatous, cells 6–9 μ diameter; asci clavate; apex broad and very obtuse, tapering below into a slender, usually crooked pedicel, wall thick except at the apex, 8-spored; spores arranged in a parallel bundle, very long and narrowly clavate, apex 5 μ thick, rounded, and gradually tapering to the pointed base, multiseptate, hyaline, smooth, straight or slightly curved, 85–95 μ long; paraphyses septate, hyaline, not thickened at the tip, 2½–3 μ thick.

On dead wood and bark. New Zealand.

A very beautiful species, superficially resembling *Lachnella pulverulenta*, but rather larger, and with very different spores.

Allied to *Erinella lutea* Phil., a native of Victoria, but differing in the very broadly rounded apex of the ascus, and the narrowly clavate spores.

Scutularia gallica Mass. Ascophore sessile, applanate, fixed by a central point, somewhat fleshy and of a pale brown colour when moist, blackish and rigid when dry; disc circular, plane or very slightly convex, immarginate, when dry becoming somewhat concave and with a sharp edge, 2–3 mm. across; hypothecium and excipulum parenchymatous, hyaline; cortical cells polygonal, 12–15 μ diameter; asci elongated, narrowly cylindrical, apex rounded, narrowed below into a slender, often curved pedicel, 8-spored; spores hyaline, filiform, nearly as long as the ascus, 60–70 $\times$ 1·5 μ, rather flexuous, arranged in a parallel, slightly twisted bundle in the ascus, continuous, multiguttulate; paraphyses numerous, slender, about 2 μ thick, septate, hyaline, slightly clavate at the apex.

On rotten wood in damp places, St. Sauveur-le-Vicomte, Normandy.

Specimen in the Kew Herbarium, along with *Bulgariella pulla*, to which it bears a superficial resemblance, but differs widely in the hyaline, elongated, filiform spores.

Ombrophila aterrima Mass. Ascophores scattered or gregarious, slightly obconic, attached by a narrowed central point, subgelatinous when moist, rigid, horny, and patellate when dry, everywhere black; disc plane, distinctly marginate, sometimes very slightly umbilicate, glabrous, 3–4 mm. diameter; excipulum parenchymatous, cortical cells polygonal, 12–16 μ diameter; asci cylindrical, apex rounded, narrowed below into a slender pedicel, 8-spored; spores obliquely 1-seriate, hyaline, continuous, smooth, usually 2-guttulate, elliptical, ends rather obtuse, 10–12 $\times$ 7 μ; paraphyses numerous, slender, hyaline, expanding above into a brown pyriform head 6–8 μ diameter.

On rotten wood in damp places. Juan Fernandez (*Bertero*, 1706).

A very fine and distinct species, distinguished by the black ascophore, which superficially resembles *Bulgaria inquinans* in miniature.

Scleroderris virescens Mass. (Pl. 357, fig. 5). Scattered or in groups of 2–3 individuals, which are then more or less connate at the base, somewhat erumpent, globose and closed at first, then expanding, the irregular margin remaining more or less incurved, glabrous, entirely dingy, olive-green (when dry), about 1 mm. diameter; substance tough; hypothecium and excipulum composed of very slender, much interwoven, greenish hyphæ, which run out at the periphery into groups of larger cells, forming a grumous external layer; asci stout, subcylindrical, apex rounded, contracted at the base abruptly into a very short pedicel, not at all coloured blue by iodine, 85–95 $\times$ 18 μ; spores 8, irregularly 2-seriate, hyaline, smooth, straight or slightly curved, cylindric-ellipsoid, ends obtuse, basal end usually slightly narrowest, 5–7-

septate, 32–35 × 8–9 μ; paraphyses numerous, very slender, septate, corymbosely branched at the apex, the tips slightly thickened and tinged green.

On soft decayed wood. Bethlehem, United States (*Schweinitz*).

The present very fine and distinct species is amongst the Schweinitzian species in Herb. Berk., Kew, with the label "Bethlehem; herb. Schweinitz," but without a name by Schweinitz. On the other hand, the name "*Peziza virescens?*" in Berkeley's writing is on the paper on which the specimen is mounted.

Pyrenopeziza Ellisii Mass. (Pl. 357, figs. 6 & 7). Scattered or gregarious, erumpent, at first subglobose and closed, then expanded, thin and soft, blackish grey, glabrous, $\frac{1}{2}$–$\frac{3}{4}$ mm. diameter; externally consisting of irregularly polygonous cells 9–12 μ diameter, which have a tendency to become slightly elongated and parallel to form the minutely fimbriate margin, dark brown; within the outer dark-coloured marginal cells is a slightly longer series of hyaline hyphæ, which give to the margin a whitish appearance; asci clavate, apex narrowed and becoming blue with iodine, base narrowed into a long, slender pedicel, usually curved, 90–100 × 10–12 μ; spores 8, 2-seriate, hyaline, continuous, smooth, cylindrical, ends obtuse, usually very slightly curved and 2-guttulate, 14–16 × 3·5–4 μ; paraphyses scanty, cylindrical, septate, about 3 μ thick.

Peziza denigrata Kunze in Ellis, N. Amer. Fung, no. 565.

On dead culms of *Festuca tenella*. Newfield, New Jersey, U.S.A. (*Ellis*).

Superficially resembling *Niptera denigrata* J. Kunze, Fung. Sel. no. 180 (= *Pyrenopeziza denigrata* Rehm, Asc. no. 353); Krypt.-Flora, Disc. pl. 631, figs. 1–5, p. 605; Sacc. Syll. no. 1518.

P. denigrata differs from the present species in having the asci shorter, cylindric-oblong, abruptly narrowed below into a very short pedicel; paraphyses numerous, tips thickened, and the external cells of the excipulum smaller.

Sprague ola Mass. (Pl. 357, figs. 8 & 9). Ascophore subglobose, irregularly nodulose, glabrous, sessile, solid, hymenium covering the entire surface; asci cylindric-clavate, apex slightly truncate, the pore becoming blue with iodine; spores 8, 1-seriate, continuous, hyaline, smooth, elliptical; paraphyses slender, septate; hypothecium formed of slender, hyaline, very densely interlaced hyphæ, which become thicker, much branched, aseptate, and more loosely interwoven at the centre of the ascophore.

Mitrula Berk. Grev. iii. 149.

As to what *Spathularia crispata* Fr. really is, we shall never know, as it has not been described. In first mentioning the name —Summ. Veg. Scand. 347 (1846)—Fries, in contrasting it with *S. flavida*, says, "A priori distinctissima!" Fuckel accepts as the species of Fries a *Spathularia* differing from *S. flavida* in having slightly different spores, measuring 48 × 3 μ, whereas his measurements for *S. flavida* are 72 × 2 μ (Symb. Myc. 332). Berkeley, on the other hand, considered the New England fungus communicated by Sprague to represent *S. crispata* of Fries, but, observing that the

spores were elliptical, placed it in the genus *Mitrula*, without, however, giving a diagnosis, but simply stating, "Sporidia elliptic uniseriate." As the fungus under consideration is neither a *Spathularia* nor a *Mitrula*, neither does it accord with any hitherto defined genus; it is named after its discoverer, one of the pioneers of N. American botany.

Spragueola americana Mass. (Pl. 357, figs. 8 & 9). Ascophore subglobose, 1–1·5 cm. broad and high, upper surface coarsely nodulose or lobed, glabrous, everywhere pale ochraceous-tan (when dry), fleshy and solid, internally white; asci narrowly cylindric-clavate, apex slightly truncate, the pore becoming blue with iodine, straight, 70–75 × 5–6 μ; spores 8, obliquely 1-seriate, continuous, hyaline, smooth, elliptical, ends obtuse, 6·5–7 × 3·5 μ; paraphyses septate, slender, clavate, about 3 μ thick at the apex; excipulum formed of branched hyphæ about 2·5 μ thick and very densely interwoven; these become thicker, up to 5 μ, much branched, aseptate, and more loosely interwoven to form the central portion of the ascophore.

Mitrula crispata Fr.; Berkeley in Notices of N. Amer. Fung. no. 704*, in Grev. iii. 142 (1875).

On the ground, amongst pine-leaves. New England (*Sprague*, no. 5758).

Geoglossum lignicolum Mass. (Pl. 357, figs. 19 & 20). Gregarious, growing on decayed wood, 4–5 cm. high, entirely black with a purple tinge; upper half clavate, round or compressed, glabrous and covered by the hymenium, about 3 mm. thick; lower half forming the stem sterile, minutely velvety, equal, usually crooked, slender; asci clavate, apex rounded and tinged deep blue with iodine, often curved, 150 × 15 μ; spores linear-clavate, apex thickest, brown, translucent, usually very slightly curved, 7-septate, arranged in a parallel fascicle in the ascus, 8 in number; paraphyses straight, clavate, septate, apex tinged olive and about 6 μ thick.

Growing on rotten wood along with the type specimen of *Mitrula vinosa* Berk., which it much resembles superficially. Tasmania (*Archer*).

Distinguished by the violet-black colour, and in growing on wood. *Geoglossum australe* has much longer spores.

Hypocrella ochracea Mass. (Pl. 357, figs. 10–13). Hypophyllous or very rarely epiphyllous, gregarious or scattered; stroma at first subglobose and often slightly constricted at the base, hemispherico-depressed and surrounded by a thin border at maturity, 3–5 mm. diameter, pale ochraceous or sometimes almost white, firm, glabrous, internally white and composed of slender, densely interwoven hyphæ, fixed by a slender central point; perithecia rather scanty, immersed, broadly ovate, ostiola indicated externally by a minute pore; asci cylindric-fusiform, apex slightly capitate, narrowed below into a long pedicel, usually curved, not coloured blue with iodine, 250–300 × 13–15 μ; spores arranged in a parallel fascicle which is slightly twisted on its axis, hyaline, linear, ends

pointed, multiseptate, constricted at the septa, about 200 × 3·5 μ, breaking up into elliptical cells about 10 × 3·5 μ while still in the ascus; paraphyses absent.

On dead and fallen coriaceous leaves. Brazil, *Glaziou*, nos. 18806, 18811, 18812).

Differs from *Hypocrella oxyspora* in being larger, and in having the component cells of the spores elliptical, and not apiculately fusiform.

Hypocrella oxyspora Mass. Hypophyllous, scattered, stroma cylindric-globose, surrounded at the base by a radiating, more or less floccose extension, 2–3 mm. diameter, apex often slightly depressed, apricot-coloured or bright ochraceous, glabrous, fixed by a central point and readily falling away at maturity; perithecia few in number, broadly ovate, large, ostiola indicated externally by small depressions; asci cylindric-fusiform, apex slightly capitate, not coloured blue with iodine, 200–220 × 12 μ; spores 8 in number, filiform, arranged in a parallel fascicle slightly twisted on its axis, hyaline, multiseptate, much constricted at the septa, averaging 150 × 4–5 μ, breaking up into its component cells before leaving the ascus; the cells vary from being very acutely fusiform to an almost globose median part abruptly running out at opposite sides into a hair-like apiculus, 18–20 × 4–5 μ; paraphyses absent.

Aschersonia oxyspora Berk. Decad. Fung. no. 463, in Kew Journ. Bot. vi. 205 (1854); Sacc. Syll. iii. no. 3221.

On the under side of green leaves of some *Myrsinea*. Lower part of India (*Hooker & Thomson*).

The fungus recorded for Brazil by Berkeley under the name of *Aschersonia oxyspora* in Journ. Linn. Soc. xv. 394, and in Dec. Fung. no. 615* (Kew Journ. Bot. viii. (1856)), is *Hypocrella ochracea*.

Superficially resembling *Hypocrella discoidea* (B. & Br.) Sacc., from Ceylon, but quite distinct from this and every other species in the peculiar shape of the cells into which the spores become broken up. The early breaking up of the spores into their component cells, and the subsequent disappearance of the asci, leaving the broken-up spores free in the perithecia, led Berkeley into the mistake of placing the present species in the genus *Aschersonia*. In fact, I am almost certain that I have seen conidia on the surface of young stromata resembling the cells of the broken-up ascospores in form in the present species. On the other hand, an examination of a portion of Montagne's type of *Aschersonia taitensis* Mont., the species on which the genus *Aschersonia* was founded, certainly has the young stromata covered with a dense stratum of fusiform spores; the primordia of perithecia were also very evident in the substance of the stroma, hence in all probability the genus *Aschersonia* will prove to be nothing more than the conidial form of *Hypocrella*: but in the event of this being proved, the name *Aschersonia* should be adopted for the genus, as having priority over *Hypocrella*.

Berkeley's type of *Aschersonia oxyspora* examined. It will be observed that the microscopic measurements given under the

present species, and in many other instances, do not agree with those given by Berkeley for the same species. These discrepancies may be reconciled when we remember that the methods employed in making microscopic measurements were not so accurate thirty or forty years ago as at the present day.

Hypocrea (Hypocrella) axillaris Cooke, Grev. xx. 4; Australian Fungi, 279.

On grasses. Queensland.

This species is identical with *Hypocrella Bambusæ* (B. & Br.) Sacc. Michel. i. 323; Syll. Fung. xi. no. 5064; hence the first-mentioned name should be given as a synonym of the second. *H. Bambusæ* was previously recorded only from Ceylon.

Dothidea Alyxiæ Mass. Perithecia (8–12) cæspitose and confluent, forming a black, convex pustule which originates beneath the epidermis, black, shining, glabrous, 2–3 mm. across, mouths of the perithecia rather large and partly open; asci subcylindrical, apex rounded, base narrowed into a short stout pedicel, 8-spored, 100 × 11–12 μ; spores obliquely 1-seriate, elliptical ends very obtuse, 1-septate, cells equal in size, brown, translucent, 18 × 10 μ; paraphyses absent.

On living leaves of *Alyxia buxifolia* R. Brown. Tasmania.

Readily distinguished by the narrowly cylindrical asci, the spores being 1-seriate in the ascus, and in having the two cells of equal size.

Microthyrium Psychotriæ Mass. Perithecia scattered, hypophyllous, orbicular, discoid, almost plane, smooth, blackish brown, opaque, 100–125 μ diameter, mouth distinct and slightly prominent; asci clavate, shortly stipitate, 45–50 × 6–7 μ, 8-spored; spores irregularly 2-seriate, hyaline, smooth, narrowly clavate, 1-septate below the middle, 7–8 × 2·5 × 3 μ.

On the under surface of living leaves of *Psychotria subpunctata* Hiern. West Tropical Africa, lat. 1° N. (Coll. *G. Mann*, no. 1814).

The minute perithecia are uniformly scattered over the under surface of the leaf, and were supposed by Hiern to be black points in the tissue peculiar to the species, hence his specific name.

Sterigmatocystis vitellina Ridley (Pl. 357, figs. 14–16). Entire fungus 2–3 cm. high, composed of numerous erect, aseptate hyphæ 10–12 μ thick, which are arranged in a compact, parallel fascicle for some distance upwards from the base, becoming free from each other and spreading to form a lax tassel at the apex, each hypha being terminated by a globose or broadly pyriform head 80–100 μ diameter; apical swelling of the hypha 18–22 μ diameter, giving origin to densely packed, radiating, narrowly clavate basidia 15–18 μ long, and about 4 μ thick at the apex, which bears 3–5 conical sterigmata 6–8 μ long; each sterigma in turn bears a single subglobose conidium at its apex about 4 μ diameter. Colour of every part of the fungus bright egg-yellow.

Gregarious on the fallen pericarps of some undetermined fruit. Singapore, *H. N. Ridley*.

The present species is in absolute agreement with the generic character of *Sterigmatocystis*, except in having the hyphæ grouped into a compact fascicle to form a stem-like base, a character which I do not consider as of generic importance, although Saccardo has done so in the parallel case of *Penicillium* and *Coremium*.

Sporotrichum arabicum Mass. Developed in the unexpanded inflorescence; olive-brown, velvety, soon pulverulent, bordered by the pale, radiating mycelium; sterile hyphæ creeping, branched, sparingly septate, hyaline, 4–5 μ thick; fertile hyphæ ascending, septate, furnished near the apex with subfasciculate, short, closely septate branchlets; conidia solitary and apical, fusoid, base truncate, apex apiculate, smooth, pale olive, 6 × 3 μ.

Arabia (coll. *J. Lunt*). Parasitic on the young inflorescence of *Phœnix dactylifera*.

Completely covering the inflorescence with a dense blackish olive powder long before it escapes from the spathe. The flowers are completely destroyed.

Pluteus giganteus Mass. Solitary or gregarious; pileus broadly ovate, then expanded, broadly gibbous, even, glabrous, dry, becoming much contracted when dry, margin more or less persistently incurved, tawny-orange, disc darkest, 18–24 cm. across, flesh firm, 2 cm. or more in thickness at the disc, becoming gradually thinner towards the margin; gills free, 6–8 mm. distant from the stem, rather crowded, thin, slightly wavy, margin entire, pale salmon-colour, up to 2 cm. broad; spores elliptical, smooth, 1-guttulate, pale salmon-colour, 7 × 5 μ; stem 12–14 cm. long, 3–4 cm. thick at the apex, base much incrassated, incurved, solid, glabrous, pallid.

Growing on rotten wood. Georgetown, British Guiana (*Jenman*, no. 3596).

A very fine species, characterised by its large size, and much incrassated base of the stout stem. Jenman stated that one specimen weighed two pounds when fresh.

Polyporus diminutus Mass. (Pl. 357, figs. 17 & 18). Horizontal, imbricated, conchate, soft and fleshy, pileus convex, margin slightly incurved, glabrous, deep orange-red, 3–4 mm. across, flesh pale yellow, hymenium almost plane, similar in colour or paler than the pileus, pores shallow, oblong, with a tendency to radiate from stem to margin, about $\frac{3}{4}$ mm. long, dissepiments thick; cystidia absent; spores hyaline, smooth, elliptic-oblong, 3–4 × 1·5 μ; stem lateral, horizontal, slightly curved, slender, about 2 mm. long, yellow, rarely with a tinge of red, pruinose.

On stumps of trees. Port Phillip, Victoria (*F. Reader*, no. 31).

Distinguished from *Gloeoporus pusillus* in the yellow, pruinose stem, and in being rigid and dry, not at all tremelloid.

Clavaria Kewensis Mass. Base thick, dividing almost at once into numerous, subequal, divergent branches 4–7 cm. long; branches uniform in thickness throughout, often compressed, imperfectly hollow, dividing near the apex into 2–4 short branchlets, axils rounded, tips obtuse or divided into 2–4 short finger-like

processes; base and main branches rusty-brown, becoming ochraceous upwards, pruinose with the elliptical, colourless spores, which measure 5–6 × 3·5–4 μ. Fragrant.

On rotten wood. Rock garden, Kew Gardens, Oct. 1895.

Forming dense tufts 5–6 in. across. A very distinct species, characterised by the rusty colour, and fragrant, spicy smell, which resembles that of *Lentinus cochleatus*.

Mollisia chionea Mass. & Crossl. (Pl. 357, figs. 21–24). Gregarious or crowded, sessile, but attached by a somewhat narrowed base; thin and fragile, snow-white, almost translucent when moist, becoming dead-white when dry; subglobose and closed when young, gradually becoming plane, and finally slightly convex; margin minutely fimbriate externally, very delicately pruinose, about 1 mm. across; cortex composed of hexagonal cells which are slightly elongated in the direction from base to margin, 20–25 × 10–12 μ, running out into crowded, parallel hyphæ of different lengths to form the irregularly fimbriate margin; asci cylindric-clavate, apex narrowed, base rather stout, 40–45 × 5–6 μ, 8-spored; spores irregularly 2-seriate, hyaline, continuous, smooth, narrowly cylindric-oblong, ends obtuse, straight or very slightly curved, 6–8 × 1·5–2 μ; paraphyses cylindrical, about 2 μ thick, scarce.

On dead or dying stems of *Carex pendula*. Elland, West Yorks. Comm. *C. Crossland*. Coll. *W. Needham*. Oct. 1894.

Bearing some superficial resemblance to *Helotium eburneum*, which sometimes occurs on the same host, but distinguished by its larger size, absence of stem, much larger cortical cells, and somewhat larger spores. Substance soft and watery when growing.

Description of Figures on Plate 357. — Fig. 1. *Clypeum peltatum*, group of plants on portion of a leaf; nat. size. 2. Single plant of same; × 7. 3. Paraphyses and ascus, with spores of same; 400. 4. *Dasyscypha trabinelloides*, paraphyses and ascus with spores; × 400. 5. *Scleroderris virescens*, paraphysis and ascus with spores; × 400. 6. *Pseudopeziza Ellisii*, plants on culm of *Festuca tenella*; nat. size. 7. Paraphysis with ascus and spores of same; × 400. 8. *Spragueola americana*, plant; nat. size. 10. *Hypocrella ochracea*, plants on portion of a leaf; nat. size. 11. Section through a fungus of same; × 10. 12. Ascus containing spores of same; the spores have become broken up into their component cells; × 400. 13. Portion of a spore intact, also isolated cells of same; × 400. 14. *Sterigmatocystis vitellina*, two plants; nat. size. 15. Section of fertile head of same; × 350. 16. Portion of head showing origin of spores; × 600. 17. *Polyporus diminutus*, plants; nat. size. 18. Plant of same; × 10. 19. *Geoglossum lignicolum*, plants; nat. size. 20. Spore of same; × 400. 21. *Mollisia chionea* Mass. & Crossl., plants on portion of culm of *Carex pendula*; nat. size. 22. Same, slightly magnified. 23. Sections of same in various stages of development. 24. Spores of same × 400.